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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,962	06/01/2001	James M. Reuter	P01-3663	4878
25235	7590	06/17/2005	EXAMINER	
HOGAN & HARTSON LLP ONE TABOR CENTER, SUITE 1500 1200 SEVENTEENTH ST DENVER, CO 80202			NGUYEN, TRONG NHAN P	
			ART UNIT	PAPER NUMBER
			2152	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	Application No.	Applicant(s)
	09/872,962	REUTER ET AL.
	Examiner	Art Unit
	Jack P. Nguyen	2152

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 25 May 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a)  The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
 b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a)  They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b)  They raise the issue of new matter (see NOTE below);  
 (c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None

Claim(s) objected to: None

Claim(s) rejected: 1-16

Claim(s) withdrawn from consideration: None

#### AFFIDAVIT OR OTHER EVIDENCE

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
 See attached Office Action.

12.  Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_

13.  Other: \_\_\_\_\_



Dung C. Dinh  
Primary Examiner

## DETAILED ACTION

This action is in response to Applicant's response after Final filed on 5/25/05.

### *Response to Arguments*

Applicant's arguments in the request for reconsideration filed on 5/25/05 have been fully considered but are not persuasive. As newly raised by Applicant (i.e., the arguments were not raised in the amendment filed on 11/24/04), Applicant asserts Blumenau does not disclose or suggest "...an agent coupled to the host, the agent having volatile memory for storing the first table, the table having entries to map the virtual storage segments to the storage locations." As previously addressed in the Office Action, Blumenau explicitly discloses a host controller (61, fig. 4; host controller is functionally equivalent to an agent as claimed) coupled to the host (22, fig. 4), the host controller storing a first table (fig. 30, col. 30, lines 46-55; the host controller stores a virtual table mapping of the data, as indicated by logical unit numbers 'LUN', to the data volumes (26, fig. 1) stored on the storage subsystem (20, fig. 1; col. 8, lines 23-29)). As previously indicated in the previous Office Actions (and was not objected by the Applicant), Blumenau does not explicitly disclose using volatile memory to store the tables. However, it would have been obvious to one of ordinary skill in the art to use volatile memory (e.g., random access memory or 'RAM') in computing devices to store temporary data because it would ensure any old, residual data stored in memory is erased and refreshed with new, updated data when the computing device is first powered on. Therefore, the teachings disclosed by Blumenau would have motivated

one of ordinary skill in the art to use volatile memory because of its advantages as discussed above. Blumenau further discloses both the storage subsystem (20, fig. 1) and clients (22, 23, fig. 1) keep records (in table formats) of where the data is stored for retrieval and/or access (col. 30, lines 46-55; col. 32, lines 43-47; the data mapping tables stored on the storage subsystem uses non-volatile memory and can be referred to as second table). Since copies of the data tables are stored in plurality of locations as indicated above, a host, via its host controller, can have the contents of its table be replaced or updated by the contents of the subsystem as disclosed by Blumenau in col. 32, lines 43-47 and also as claimed by Applicant as, "...a controller coupled to the agent, the controller having non-volatile memory for storing a second table, the controller intermittently causing the contents of the first table to be replaced by the contents of the second table."

Applicant asserts Blumenau does not suggest or disclose, "...a host accesses one of the entries in the table stored on the agent to determine one of the storage locations and plurality of variables indicating states of entry...turning off input/output operations at the first storage location." Blumenau does explicitly disclose the host, via its host controller as stated above, uses its storage mapping tables to access data stored in the storage subsystem (col. 44, lines 48-51, 55-64; host can see the virtual storage mapping on the storage subsystem and can access data stored the storage subsystem). Examiner interprets 'plurality of variables indicating states of the entry' to mean that various states of the table entry mapping; i.e., the host identifies the data block that is mapped to a storage location on the storage device. Thus Blumenau

discloses the volume access (via input/output 'I/O' operations) and mapping information of the virtual storage locations (indicated by virtual port host table (281, fig. 23)) identify the mapping of data to the virtual storage locations of the storage device (col. 26, lines 25-34). As per the second assertion, as previously stated in the office action, when a particular storage location (e.g., a specific data block) is busy performing input/output 'I/O' or read/write operations at that location, it would have been obvious to one of ordinary skill in the art to perform I/O operations at another storage location to avoid interference with the function being performed at the busy location or have to wait until the process is finished before performing those mentioned functions.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack P Nguyen whose telephone number is (571) 272-3945. The examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Primary Examiner